AMENDMENTS TO THE CLAIMS

What is claimed is:

Claim1 (currently amended): A process for preparing xylylenediamine ~~by~~ comprising continuously hydrogenating liquid phthalonitrile over a heterogeneous catalyst in the presence of liquid ammonia in a reactor, in which a portion of the reactor effluent is recycled as a liquid circulation stream continuously to the reactor inlet (circulation mode), which comprises conducting a stream of a phthalonitrile melt in liquid form by means of a mixer unit into the circulation stream around the hydrogenation reactor, the phthalonitrile conversion in the reactor on single pass being greater than 99%, and the circulation stream consisting to an extent of greater than 93% by weight of liquid ammonia and xylylenediamine and not comprising any further solvent for phthalonitrile.

Claim 2 (currently amended): The process according to claim 1 ~~for preparing meta-xylylenediamine by~~ comprising hydrogenating isophthalonitrile in order to prepare meta-xylyenediamine.

Claim 3 (currently amended): The process according to claim 1 ~~claims 1 or 2~~, wherein the mixer unit is heated at the point of the phthalonitrile supply into the circulation stream to a temperature in the range from 1 to 40°C above the melting point of the phthalonitrile used.

Claim 4 (currently amended): The process according to claim 1 ~~any of the preceding claims~~, wherein the liquid phthalonitrile is sprayed into the circulation stream by means of a mixer nozzle as the mixer unit.

Claim 5 (currently amended): The process according to claim 1 ~~any of the preceding claims~~, wherein the phthalonitrile conversion in the hydrogenation reactor on single pass is greater than 99.5%.

Claim 6 (currently amended): The process according to claim 1 ~~any of claims 1 to 4~~, wherein the phthalonitrile conversion in the hydrogenation reactor on single pass is greater than 99.9%.

Claim 7 (currently amended); The process according to claim 1 ~~any of the preceding claims~~, wherein the circulation stream consists to an extent of greater than 94% by weight of liquid ammonia and xylylenediamine.

Claim 8 (currently amended): The process according to claim 1 ~~any of the preceding claims~~, wherein the circulation stream contains in the range from 25 to 90% by weight of liquid ammonia.

Claim 9 (currently amended): The process according to claim 1 ~~any of the preceding claims~~, wherein the portion of the liquid reactor effluent which is recycled as the circulation stream continuously to the reactor inlet makes up from 20 to 95% by weight of the overall liquid reactor effluent.

Claim 10 (currently amended): The process according to claim 1 ~~any of the preceding claims~~, wherein the weight ratio of phthalonitrile feed stream to circulation stream is in the range from 0.03 to 1.0.

Claim11 (currently amended): The process according to claim 1 ~~any of the preceding claims~~, wherein the hydrogenation is carried out at a temperature in the range from 40 to 150°C.

Claim 12 (currently amended): The process according to claim 1 ~~any of the preceding claims~~, wherein the hydrogenation is carried out at an absolute pressure in the range from 100 to 300 bar.

Claim 13 (currently amended): The process according to claim 1 ~~any of the preceding claims~~, wherein the hydrogenation is carried out over a catalyst comprising Ni, Co and/or Fe, as an unsupported catalyst or on an inert support.

Claim 14 (currently amended): The process according to claim 1 ~~any of the preceding claims~~, wherein the hydrogenation is carried out over a manganese-doped unsupported cobalt catalyst.

Claim 15 (currently amended): The process according to claim 1 ~~any of the preceding claims~~, wherein the catalyst is disposed as a fixed bed in a tubular reactor or tube bundle reactor.

Claim 16 (currently amended): The process according to claim 1 ~~the preceding claim~~, wherein the reactor is operated in trickle mode.

Claim 17 (currently amended): The process according to claim 1 ~~any of the preceding claims~~, wherein the reactor is operated adiabatically.

Claim 18 (currently amended): The process according to claim 1 ~~any of the preceding claims~~, wherein heat is withdrawn from the circulation stream in a cooler.

Claim 19 (currently amended): The process according to claim 1 ~~any of the preceding claims~~, wherein the xylylenediamine is purified after the hydrogenation by

distilling off the ammonia and also any relatively low-boiling by-products overhead and distillatively removing relatively high-boiling impurities via the bottom.

Claim 20 (currently amended): The process according to claim 19 ~~the preceding claim~~, wherein the xylylenediamine is extracted after the distillation with an organic solvent for further purification.

Claim 21 (currently amended): The process according to claim 20 ~~the preceding claim~~, wherein cyclohexane or methylcyclohexane are used for the extraction.